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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,396	09/10/2004	Rafael San Pedro Guerrenabarrena	HERR1.001APC	1253

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EXAMINER	
ZHU, WEIPING	

ART UNIT	PAPER NUMBER
1793	

NOTIFICATION DATE	DELIVERY MODE
10/25/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/507,396	Applicant(s) GUERRENABARRENA ET AL.	
	Examiner Weiping Zhu	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 1-3 are currently under examination, wherein claim 1 has been amended in applicant's amendment filed on August 30, 2007. The original claims 4 and 5 have been cancelled in the same amendment. Applicant's election without traverse of Invention I, claims 1-3 in the reply filed on August 30, 2007 is acknowledged.

Comments

2. In line 5 of claim 5, "a chemical purity of 99.7 wt%" should be changed back to "a chemical purity of 99.7%".

It is not clear if the percentage of the content of fine Mn powder with a size of less than 100 microns is not more than 15% by volume as claimed in claim 1 or 15 wt% as recited in the applicant's remarks (line 4, page 2 and 2nd line of the paragraph bridging pages 4 and 5).

Status of Previous Rejections

3. The previous rejections of claims 1 and 2 under 35 U.S.C. 103(a) as being unpatentable over Dremann (US 4,171,215) and the previous rejections of claim 3 under 35 U.S.C. 103(a) as being unpatentable over Dremann ('215) as applied to claim 1 above in view of JP 59-004999 A as stated in the Office action dated June 1, 2007 have been maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dremann ('215) as stated in the Office action dated June 1, 2007.

With respect to the amended features in claims 1, they do not change the scope of the claim. Therefore, the ground(s) of rejection as stated in the Office action dated June 1, 2007 are applied herein.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dremann ('215) as applied to claim 1 above in view of JP 59-004999 A as stated in the Office action dated June 1, 2007.

Response to Arguments

6. The applicant's arguments filed on August 24, 2007 have been fully considered but they are not persuasive.

First, the applicant argues that Dremann ('215) uses a β -manganese powder instead of an α -manganese powder of the instant invention. In response, the examiner notes that claim 1 does not limit the manganese powder to a β -manganese powder, therefore, the manganese powder of Dremann ('215) meets the limitation of the claim 1. Furthermore, Dremann ('215) also discloses using an α -manganese powder (col. 2, lines 5-9 and col. 3, lines 53-61).

Second, the applicant argues that the manganese concentration of Dremann ('215) (50-90 wt%) is lower than the claimed concentration of 90-98 wt%. In response, the examiner notes that the highest concentration of Dremann ('215) is equal to the

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lowest claimed concentration. A prima facie case is established. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include 90 wt% of manganese in powder mixture of Dremann ('215) with expected success, because Dremann ('215) discloses the same utility over the entire disclosed ranges.

Third, the applicant argues that one of ordinary skill in the art would not have optimized the distribution of Al particle size and the percentage of fine Mn particles of Dremann ('215) in order to obtain desired dissolution rate of the pellets in the Al bath. In response, the examiner notes, as stated in the Office action dated June 1, 2007, the Al particle size distribution and percentage of fine Mn particles with a size of less than 100 μm are result-effective variables, because they would directly affect the dissolution rate of the pellets in the Al bath as disclosed by Dremann ('215) (col. 1, lines 39-46). Therefore it would have been obvious to one skilled in the art to have optimized the result-effective variables in the process of Dremann ('215) for the desired dissolution rate of the pellets in the Al bath. See MPEP 2144.05 II and the responses to the arguments above.

Fourth, the applicant argues that JP ('999 A) does not teach the claimed features in the instant claim 3, therefore, the combination of Dremann ('215) and JP ('999 A) would not produce the claimed invention. In response, the examiner notes that JP ('999 A) teaches controlling powder supply through a detector and control circuit in order to suppress the fluctuation of the powder supply (abstract), which reads on the claimed feature of the levels of the Mn and Al, mix in the corresponding means monitored by

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respective sensors to keep this mix level between limits. The combination of Dremann ('215) and JP ('999 A) renders the claimed features obvious to one of ordinary skill in the art.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZ

10/15/2007

ROY KANG
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